

MOSQUITO RECORDS FROM WYOMING AND
YELLOWSTONE NATIONAL PARK
(Diptera: Culicidæ)

DON M. REES

Biology Department, University of Utah, and

FRED C. HARMSTON

S. A. Sanitarian (R), U. S. Public Health Service

This report is based on a study of the mosquitoes in the insect collections of the University of Utah and the Utah State Agricultural College, and specimens collected by personnel of the U. S. Public Health Service, Malaria Control in War Areas and Communicable Disease Center Activities Programs. Specimens have been examined from nearly all sections of the state and it is believed that the material available for study has been sufficient to provide a rather accurate index to the mosquito fauna of Wyoming. In order to make the list as complete as possible the writers have included all available records from the works of Dyar, and others, that have come to their attention. For convenience the mosquitoes and collection records have been arranged in alphabetical order. The names of the collectors have been abbreviated as follows: Don M. Rees, (R); L. E. Perry, (P); L. T. Nielsen, (N); G. F. Knowlton (K); F. C. Harmston, (H).

LIST OF SPECIES RECORDED

- | | |
|--|--|
| 1. <i>Aedes campestris</i> Dyar & Knab. | 13. <i>Aedes intrudens</i> Dyar. |
| 2. <i>Aedes canadensis</i> (Theobald). | 14. <i>Aedes nearcticus</i> Dyar. |
| 3. <i>Aedes cataphylla</i> Dyar. | 15. <i>Aedes nigromaculis</i> (Ludlow). |
| 4. <i>Aedes cinereus</i> Meigen. | 16. <i>Aedes pionips</i> Dyar. |
| 5. <i>Aedes communis</i> (DeGeer). | 17. <i>Aedes pullatus</i> (Coquillet). |
| 6. <i>Aedes diantaeus</i> Howard, Dyar & Knab. | 18. <i>Aedes punctor</i> (Kirby). |
| 7. <i>Aedes dorsalis</i> (Meigen). | 19. <i>Aedes schizopinax</i> Dyar. |
| 8. <i>Aedes excrucians</i> (Walker). | 20. <i>Aedes spencerii</i> (Theobald). |
| 9. <i>Aedes fitchii</i> (Felt & Young). | 21. <i>Aedes sticticus</i> (Meigen). |
| 10. <i>Aedes idahoensis</i> (Theobald). | 22. <i>Aedes stimulans</i> (Walker). |
| 11. <i>Aedes impiger</i> (Walker). | 23. <i>Aedes triseriatus</i> (Say). |
| 12. <i>Aedes increpitus</i> Dyar. | 24. <i>Aedes trivittatus</i> (Coquillet). |
| | 25. <i>Aedes vexans</i> (Meigen). |
| | 26. <i>Anopheles franciscanus</i> McCracken. |

- | | |
|--|--|
| 27. <i>Anopheles freeborni</i> Aitken. | 36. <i>Culiseta impatiens</i> (Walker). |
| 28. <i>Anopheles occidentalis</i> Dyar & Knab. | 37. <i>Culiseta incidens</i> (Thomson). |
| 29. <i>Anopheles punctipennis</i> (Say). | 38. <i>Culiseta inornata</i> (Williston). |
| 30. <i>Culex apicalis</i> Adams. | 39. <i>Mansonia perturbans</i> (Walker). |
| 31. <i>Culex pipiens</i> Linnæus. | 40. <i>Psorophora signipennis</i> (Coquillet). |
| 32. <i>Culex restuans</i> Theobald. | |
| 33. <i>Culex salinarius</i> Coquillet. | |
| 34. <i>Culex tarsalis</i> Coquillet. | |
| 35. <i>Culiseta alaskaensis</i> (Ludlow). | |

AEDES CAMPESTRIS Dyar & Knab

Hot Springs County: Thermopolis, March 7, 1944 (P). Lincoln County: Opal, June 7, 1947 (H). Uinta County: Evanston, Ft. Bridger, Lyman and Mountain View, June 25, 1933 (R). Yellowstone National Park: Gibbon Meadows, July 3, 1936 (R).

AEDES CANADENSIS (Theobald)

Yellowstone National Park: Lonestar Geyser, June 30, 1947 (N). Dyar also records the occurrence of this species in the park.

AEDES CATAPHYLLA Dyar

Yellowstone National Park: Gibbon Meadows, June 4, 1933 (R); Yellowstone Lake, June 6, 1947 (N). Dyar reports this species from a number of localities in the park.

AEDES CINEREUS Meigen

Johnson County: Buffalo, June 8, 1947 (H). Lincoln County: Cokeville, September 12, 1945 (H). Uinta County: Ft. Bridger, August 10, 1946 (H). Yellowstone National Park: Fishing Bridge, June 30, 1936 (R).

AEDES COMMUNIS (DeGeer)

Uinta County: Lone Tree, June 25, 1933 (R). Yellowstone National Park: Fishing Bridge, July 3, 1936 (R); West Thumb, June 14, 1936 (K); Sylvan Lake, June 29, 1947 (N). *Communis* is reported by Dyar, from several places in the park.

AEDES DIANTAEUS Howard, Dyar & Knab

Reported by Dyar from Yellowstone National Park.

Aedes dorsalis (Meigen)

Albany County: Laramie, August 19, 1947 (H). Big Horn County: Basin, Cowley, Greybull and Lovell, August 16, 1947 (H). Carbon County: Baggs, June 12, 1947 (H); Rawlins and Three Forks, June 8, 1947 (H). Hot Springs County: Thermopolis, March 7, 1944 (P). Lincoln County: Cokeville, Sage and Smoot, September 12, 1945 (H). Natrona County: Alcova and Midwest, June 8, 1947 (H). Teton County: Jackson, September 11, 1945 (H). Uinta County: Evanston, Ft. Bridger, Lone Tree, Lyman and Mountain View, June 22, 1933 (R).

Aedes excrucians (Walker)

Yellowstone National Park: July 3, 1933 (R); Fishing Bridge, Canyon Junction and Tower Falls, June 30, 1947 (N). This species is also recorded by Dyar from a number of localities in the park.

Aedes fitchii (Felt & Young)

Sublette County: Pinedale, June 11, 1940 (R). Teton County: Jenny Lake, July 4, 1947 (N). Yellowstone National Park: West Thumb, July 3, 1933 (R).

Aedes idahoensis (Theobald)

Carbon County: Baggs, June 12, 1947 (H). Hot Springs County: Thermopolis, March 7, 1944 (P). Lincoln County: Cokeville, September 12, 1945 (H); Opal, June 7, 1947 (H). Uinta County: Evanston, Ft. Bridger, Lyman and Mountain View, June 23, 1933 (R). Yellowstone National Park: Lake Lodge, August 2, 1944 (P). Dyar records this species from a number of places in the park.

Aedes impiger (Walker)

Dyar reports this species from Mammoth Hot Springs and Camp Roosevelt, Yellowstone National Park.

Aedes increpitus Dyar

Big Horn County: Greybull, August 16, 1947 (H). Lincoln County: Kemmerer, June 7, 1947 (H). Sublette County: Daniel,

June 10, 1940 (R). Uinta County: Lone Tree, August 10, 1946 (H). Yellowstone National Park: Fishing Bridge, July 3, 1933 (R). *Increpitus* is reported by Dyar from a number of localities in the park.

AEDES INTRUDENS Dyar

Uinta County: Lone Tree, July 22, 1935 (R). Yellowstone National Park: Fishing Bridge, July 3, 1933 (R). These records are questionable since the identifications were made from female specimens only.

AEDES NEARCTICUS Dyar

Yellowstone National Park: Seven miles east of Old Faithful, June 6, 1947 (N). Identified from larvæ only.

AEDES NIGROMACULIS (Ludlow)

Albany County: Laramie, September 14, 1946 (H); Rock River, August 20, 1947 (H). Big Horn County: Cowley, Greybull and Lovell, August 16, 1947 (H). Carbon County: Baggs, June 12, 1947 (H). Converse County: Douglas, April 7, 1944 (P); June 10, 1947 (H). Hot Springs County: Thermopolis, August 3, 1944 (P). Johnson County: Buffalo, June 10, 1947 (H). Lincoln County: Cokeville, September 12, 1945 (H); Kemmerer and Opal, June 7, 1947 (H). Natrona County: Casper, June 10, 1947 (H). Platte County: Wheatland, June 10, 1947 (H). Uinta County: Lyman, August 10, 1946 (H). Washakie County: Lander, August 17, 1947 (H). This is an extremely troublesome mosquito in many sections of the state, particularly in the open plains regions.

AEDES PIONIPS Dyar

Reported by Dyar from Old Faithful and Yellowstone Lake, in Yellowstone National Park.

AEDES PULLATUS (Coquillett)

Albany County: Centennial, August 19, 1947 (H). Fremont County, Sioux Pass, August 17, 1947 (H). Sublette County: Pine-dale, June 11, 1940 (R). Teton County: Jenny Lake, July 4, 1947 (N). Yellowstone National Park: Fishing Bridge, July 2, 1933 (R); Yellowstone Lake, June 6, 1946 (N).

Aedes punctor (Kirby)

Yellowstone National Park: Yellowstone Falls, July 2, 1933 (R); Lewis Lake, June 28, 1947 (N); Yellowstone Lake, June 6, 1946 (N). Dyar records the occurrence of *punctor* from several localities in the park.

Aedes spencerii (Theobald)

Sublette County Daniel, June 10, 1940 (R). Uinta County: Lone Tree, July 6, 1929 (R). Dyar records it from Old Faithful and Yellowstone Lake, Yellowstone National Park.

Aedes schizopinax Dyar

Recorded by G. A. Mail, from Mammoth Hot Springs, Yellowstone National Park.

Aedes sticticus (Meigen)

Albany County: Rock River, June 11, 1947 (H). Carbon County: Baggs, June 12, 1947 (H). Uinta County: Lone Tree, August 10, 1946 (H).

Aedes stimulans (Walker)

Sublette County: Daniel, June 10, 1940 (R). Uinta County: Lone Tree, July 6, 1929 (R); April 14, 1942 (K).

Aedes triseriatus (Say)

Johnson County: Buffalo, June 10, 1947 (H). Washakie County: Worland, August 16, 1947 (H).

Aedes trivittatus (Coquillett)

Hot Springs County: Thermopolis, August 3, 1944 (P). Natrona County: Casper, June 8, 1947 (H). Platte County: Chugwater, June 10, 1947 (H).

Aedes vexans (Meigen)

Albany County: Laramie, June 11, 1947 (H); Rock River, June 11, 1947 (H). Carbon County: Baggs, June 12, 1947 (H); Hanna and Saratoga, August 19, 1947 (H). Converse County: Douglas, June 10, 1947 (H). Hot Springs County: Thermopolis, August 3, 1944 (P). Lincoln County: Afton, Border, Cokeville

and Smoot, September 12, 1945 (H). Platte County: Chugwater, June 10, 1947 (H); Wheatland, August 5, 1944 (P). Teton County: Moran, September 11, 1945 (H). Uinta County: Evanston and Ft. Bridger, August 10, 1946 (H).

ANOPHELES FRANCISCANUS McCracken

Carbon County: Saratoga, August 19, 1947 (H).

ANOPHELES FREEBORNI Aitken

Lincoln County: Afton, July 9, 1941 (R); Cokeville, September 12, 1945 (H); Kemmerer, June 7, 1947 (H). Teton County: Jackson, September 12, 1945 (H). Uinta County: Evanston and Ft. Bridger, August 10, 1946 (H).

ANOPHELES OCCIDENTALIS Dyar & Knab

Converse County: Douglas and Glenrock, August 4, 1944 (P). Fremont County: Lander and Riverton, August 17, 1947 (H). Teton County: Jackson and Moran, September 12, 1945 (H). Yellowstone National Park: West Entrance, September 8, 1945 (H).

ANOPHELES PUNCTIPENNIS (Say)

Teton County: Moran, September 12, 1945 (H). Yellowstone National Park: Mammoth Lodge, September 8, 1945 (H). Olson and Deegan report the occurrence of this species at Ft. Warren, Cheyenne.

CULEX APICALIS Adams

Johnson County: Buffalo, June 10, 1947 (H). Platte County: Chugwater, June 10, 1947 (H).

CULEX PIPIENS Linnæus

Albany County: Laramie, September 14, 1946 (H). Uinta County: Evanston, August 10, 1946 (H). Washakie County: Worland, August 17, 1947 (H).

CULEX RESTUANS Theobald

Carbon County: Rawlins, September 15, 1946 (H); Saratoga, August 19, 1947 (H). Fremont County: Lander, August 17, 1947 (H). Lincoln County: Cokeville, September 12, 1945 (H).

CULEX SALINARIUS Coquillet

Sweetwater County: Rock Springs, September 15, 1946 (H).
Washakie County: Tensleep and Worland, August 16, 1947 (H).

CULEX TARSALIS Coquillet

Albany County: Laramie, June 11, 1947 (H); August 19, 1947 (H). Carbon County: Baggs, June 12, 1947 (H); Rawlins, September 14, 1946 (H); Saratoga, August 19, 1947 (H). Fremont County: Lander and Riverton, August 17, 1947 (H). Hot Springs County: Thermopolis, August 16, 1947 (H). Lincoln County: Alpine, September 12, 1945 (H); Kemmerer, June 7, 1947 (H). Sweetwater County: Rock Springs, August 21, 1947 (H). Teton County: Jackson, July 4, 1934 (R). Uinta County: Lone Tree, July 6, 1939 (R), Yellowstone National Park: Old Faithful and Canyon Junction (Dyar).

CULISETA ALASKAENSIS (Ludlow)

Sublette County: Pinedale, July 23, 1946 (R).

CULISETA IMPATIENS (Walker)

Carbon County: Medicine Bow Lodge, August 19, 1947 (H). Sheridan County: Sheridan, June 9, 1947 (H). Uinta County: Lone Tree, June 25, 1933 (R). Yellowstone National Park: West Entrance, September 8, 1945 (H).

CULISETA INCIDENS (Thomson)

Big Horn County: Greybull, August 16, 1947 (H). Converse County: Glenrock, August 4, 1944 (P). Fremont County: Lander, August 17, 1947 (H). Lincoln County: Afton, September 12, 1945 (H). Sheridan County: Sheridan, June 9, 1947 (H). Teton County: Jackson, September 12, 1945 (H). Yellowstone National Park: West Entrance and several other points in the park, September 8, 1945 and August 23, 1946 (H).

CULISETA INORNATA (Williston)

Albany County: Laramie, August 19, 1947 (H); Rock River, June 11, 1947 (H). Big Horn County: Cowley and Greybull, August 16, 1947 (H). Converse County: Douglas and Glenrock, August 5, 1944 (P). Fremont County: Lander, August 17, 1947 (H). Hot Springs County: Thermopolis, August 16, 1947 (H).

Laramie County: Cheyenne, September 9, 1944 (P). Lincoln County: Kemmerer, June 7, 1947 (H). Park County: Powell, August 3, 1944 (P). Platte County: Wheatland, August 5, 1944 (P). Sheridan County: Sheridan, June 9, 1947 (H). Sweetwater County: Green River, September 10, 1944 (P). Teton County: Moran, July 3, 1934 (R). Uinta County: Evanston, July 24, 1936 (R); Ft. Bridger, August 21, 1947 (H). Washakie County: Worland, August 16, 1947 (H). Yellowstone National Park: Fishing Bridge, Madison Junction and several other points, September 8, 1945 (H).

MANSONIA PERTURBANS (Walker)

Platte County: Chugwater, June 10, 1947 (H). Uinta County: Evanston, August 10, 1946 (H).

PSOROPHORA SIGNIPENNIS (Coquillett)

Johnson County: Buffalo, June 10, 1947 (H). Washakie County: Worland, August 16, 1947 (H).

LITERATURE CITED

- DYAR, H. G. 1923. The mosquitoes of the Yellowstone National Park. *Ins. Ins. Mens.* 11:36 - 46.
- MAIL, G. A. 1934. The mosquitoes of Montana. *Mont. Agr. Exp. Sta. Bul.* 288:1 - 72.
- OLSON, T. A. and H. L. KEEGAN. 1944. New mosquito distribution records from the Seventh Service Command Area. *Jour. Econ. Ent.* 37:847 - 848. 1944. The mosquito collecting program of the Seventh Service Command for 1942 - 1943. *Jour. Econ. Ent.* 37:780 - 785.